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Actuarial Cost Estimates for Hospital Insurance Act of 1965 and Social Security Amendments of 1965

by ROBERT J. MYERS

U.S. Department of Health, Education, and Welfare
Social Security Administration.........Division of the Actuary
ACTUARIAL STUDY NO. 59
JANUARY 1965

This study has been issued by the Division of the Actuary, under authority delegated by the Commissioner of Social Security. It is designed for the use of the staff of the Social Security Administration and for limited circulation to other persons in administration, insurance, and research concerned with the subject treated.

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FOREWORD

Proposals to add hospitalization benefits for beneficiaries aged 65 and over to the OASDI program have created an interest in the data and methods used to develop actuarial cost estimates in this new area. This Study is a revision and expansion of Actuarial Study No. 52, and Actuarial Study No. 57, which dealt with earlier versions of the Administration proposal for hospitalization and related benefits. This Study also presents the cost estimates for the proposed changes in the cash benefits program.

It is the policy of the Division of the Actuary to make its methods and procedures available to those interested. It is our hope that this Study will provide the information not readily available in other published reports.

Robert J. Myers
Chief Actuary
Social Security Administration

A. Introduction

This Study presents long-range actuarial cost estimates for the Hospital Insurance Act of 1965 and the Social Security Amendments of 1965, contained in H.R. 1, introduced by Congressman King on January 4 (an identical bill, S. 1, was introduced by Senator Anderson on January 6). H.R. 1 contains provisions establishing a hospital insurance program for beneficiaries aged 65 or over under the Old-Age, Survivors, and Disability Insurance system. In addition, the proposal would provide similar protection for beneficiaries under the Railroad Retirement system and for most persons aged 65 and over in 1966 (and for those attaining this age in the next few years) who are not insured under either of these social insurance systems.

As to OASDI beneficiaries, this bill would provide a specific program of hospitalization and related benefits for all persons who are (1) aged 65 and over and (2) "entitled" to monthly benefits. The term "entitled" means that the individual meets all the statutory provisions governing eligibility for monthly benefits (old-age, dependent, or survivor) and has filed an application therefor (which may be concurrent with application for hospitalization benefits). The term thus includes not only beneficiaries in current-payment status, but also those who are not drawing monthly benefits because they are continuing in substantial employment. The following benefits would be provided:

(a) 60 days of semi-private hospital care within a "benefit period", with a flat deductible in an amount equal to the average daily hospital cost under the program.

(b) 60 days of post-hospital extended care within a "benefit period", when such services are furnished following transfer from a hospital and are necessary for continued treatment of a condition for which the individual was hospitalized. Such care would be furnished in an "extended care facility", which is an institution that has in effect a transfer agreement with a hospital (or is under common control with a hospital) and that is, in essence, a skilled nursing facility (as defined in detail in the bill).

(c) 240 home health service visits during a calendar year.

(d) Outpatient hospital diagnostic services in excess of a deductible equal to 50% of the hospitalization deductible during a 30-day period.

The term "benefit period" means the period beginning with the first day that an individual receives hospitalization benefits and ending with the 90th day thereafter during each of which he has not been a patient in a hospital or an extended care facility (but such 90 days must occur within a 180-day period). The benefits would first be available in July 1966, except for post-hospital extended care benefits, which would first be available in January 1967.

These hospitalization and related benefits for OASDI beneficiaries (and the accompanying administrative expenses) would be financed, on a long-range basis, by an allocation from the overall contribution rate for the OASDI system, as modified by this bill (see Table 1), of .60% of taxable payroll as to the combined employer-employee rate for 1966, .76% for 1967-68, and .90% thereafter. This income would be channelled into the Hospital Insurance Trust Fund, which would be established on a basis similar to that of the existing OASI and DI Trust Funds.

The same hospitalization benefit protection would be available to beneficiaries under the Railroad Retirement system.[a] Persons who are beneficiaries under both systems would, of course, not receive "double" benefits. The employer and employee contribution rates would be increased by the same amount as under the OASDI system, but the taxable wage basis would not be changed from the present $450 per month. The financial interchange provisions[b] would apply so that, in essence, the OASDI system would be "reinsuring" the hospitalization benefit experience of the Railroad Retirement system, which would neither gain nor lose as a result of the actual experience. The Railroad Retirement system would, of course, have to provide out of its existing financing the equivalent income arising from raising the OASDI earnings base to $5,600.

Likewise, the hospitalization benefit protection would be provided to any person aged 65 and over on July 1, 1966 who is not eligible as an OASDI or Railroad Retirement beneficiary and who (a) is not an employee of the Federal Government or a retired Federal employee eligible for health benefits under the plan established by the Federal Government for such persons, (b) is not a member of a subversive organization and has not been convicted of subversive activities, and (c) is a citizen or has had at least 10 years of continuous residence. Persons meeting such conditions who attain age 65 before 1968 also qualify for the hospitalization benefits, while those attaining age 65 after 1967 must have some OASDI or Railroad Retirement coverage to qualify--namely, 3 quarters of coverage (which can be acquired at any time after 1936) for each year elapsing after 1965 and before the year of attainment of age 65 (e.g. 6 quarters of coverage for attainments in 1968, 9 quarters for 1969, etc.). This transitional provision "washes out" for men attaining age 65 in 1974 and for women attaining age 65 in 1972, since the fully-insured-status requirement for monthly benefits for such categories is then no greater than the special-insured status requirement. The benefits for the "non-insured" group are paid from the HI Trust Fund, but with full reimbursement therefor from the General Treasury.

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[a] However, Railroad Retirement beneficiaries would have certain additional benefit protection in that, under certain circumstances, the benefits would be available in Canada.

[b] For a description of these provisions, see pages 74 and 80-82 of the 24th Trustees Report (House Document No. 236, 88th Congress).

From an actuarial-cost standpoint, the major features of this bill as they relate to the cash benefits under the OASDI program are as follows:

(1) Monthly benefits for all types of beneficiaries would be increased by 7% on that portion of the benefit that is derived from the first $400 of average monthly wage (AMW). This would make the benefit formula underlying the benefit table be as follows: 62.97% of the first $110 of AMW, plus 22.90% of the next $290 of AMW, plus 21.4% of the next $66 of AMW (the maximum AMW possible being $466, based on annual earnings of $5,600), effective retroactively to January 1, 1965.

(2) The underlying basis for the family maximum benefit provision would be changed so that it would be earnings-related at all earnings levels. The present basis is the smaller of 80% of AMW or $254 (twice the maximum Primary Insurance Amount; the PIA is the monthly benefit payable to a worker retiring at or after age 65, or to a disabled worker, without considering benefits for dependents), but in no case less than $1\frac{1}{2}$ times the PIA. Under the proposed basis, the dollar-limit amount ($254) would be eliminated, and instead the maximum would be determined from a weighted formula--80% of the first $x of AMW, plus 40% of AMW in excess of $x (where x is 2/3 of the maximum possible AMW--i.e., 1/12 of the maximum annual earnings base), effective retroactively to January 1, 1965.

(3) Coverage would be extended to self-employed doctors and to tips, effective January 1, 1966.

(4) The maximum earnings base would be increased from $4,800 to $5,600 per year, effective January 1, 1966.

(5) The contribution schedule and the allocations to the Trust Funds would be revised in the manner shown in Table 1.

(6) A new basis of reimbursing the Trust Funds for the cost of noncontributory military service wage credits (as they increase benefit amounts) would be provided--in essence, by spreading these costs in equal annual installments over the next 50 years.

Section B gives the basic data utilized, the assumptions made, and the computation procedure in regard to the cost estimates for the hospitalization and related benefits. Section C presents the cost estimates, along with discussion of changes made in the hospitalization-benefits cost estimates in recent years. Finally, Section D outlines the problems involved in making actuarial cost estimates for hospitalization and related benefits.

Table 1

EARNINGS BASE, CONTRIBUTION RATES, AND ALLOCATIONS TO TRUST FUNDS UNDER H.R. 1

Calendar Year	Earnings Base	Contribution Rates			
		Employer	Employee	Employer-Employee	Self-Employed
1965[a/]	$4,800	3.625%	3.625%	7.25%	5.4%
1966-67	5,600	4.25	4.25	8.50	6.4
1968-70	5,600	5.0	5.0	10.0	7.5
1971 and after	5,600	5.2	5.2	10.4	7.8

Calendar Year	Allocation Rates					
	Employer-Employee Contributions			Self-Employed Contributions		
	OASI	DI	HI	OASI	DI	HI
1965[a/]	6.75%	.50%	--	5.025%	.375%	--
1966	7.23	.67	.60%	5.4475	.5025	.45%
1967	7.07	.67	.76	5.3275	.5025	.57
1968	8.57	.67	.76	6.4275	.5025	.57
1969-70	8.43	.67	.90	6.3225	.5025	.675
1971 and after	8.83	.67	.90	6.6225	.5025	.675

a/ Present law (combined employer-employee rate in future years is scheduled as follows: 8.25% in 1966-67 and 9.25% in 1968 and after).

B. Data, Assumptions, and Procedures in Cost Estimates for Hospitalization and Related Benefits for OASDI Beneficiaries

The various cost factors involved for each of the types of hospitalization and related benefits (such as probabilities of becoming hospitalized and average length of hospitalization, varying by age and sex) have been developed by the Division of the Actuary in collaboration with the Division of Research and Statistics. These factors have been applied to the estimated numbers of OASDI eligibles, which are available from the long-range actuarial cost estimates for the existing cash-benefits system. The latter are summarized in the 24th Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance Trust Fund and the Federal Disability Insurance Trust Fund, pages 45-55 and 64-75 (H. Doc. No. 236, 88th Congress) and in Actuarial Study No. 58; the general assumptions and procedures used in developing them are described in Actuarial Study No. 49.

I. Factors Affecting Hospitalization-Benefits Costs

The elements affecting the costs of hospitalization benefits may be itemized as follows:

(1) Number of eligible beneficiaries and their age-sex composition;

(2) Rates of hospital admission;

(3) Average duration of hospitalization;

(4) Average daily per capita hospital costs; and

(5) Effect of maximum-duration and deductible provisions.

Hospitalization-benefit costs for various future years are obtained by multiplying the estimated number of eligibles by a factor representing the average annual per capita cost of hospitalization (after taking into account any maximum-duration and deductible provisions). This is done separately by sex and by age groups, since hospital utilization varies significantly by age and sex. The per capita hospitalization-cost factor is derived in relation to all eligibles in the age-sex group, including those who are not hospitalized. The age-sex composition of the eligible group will vary over the years. For this reason, the average per capita cost for the total group of noninsured persons eligible for HI benefits is significantly higher than for the insured group (since the former has a much higher age distribution).

The per capita hospitalization-cost factor consists of two elements, the average length (in days) of compensable hospitalization (considering all eligibles, and including the effect of any deductible, as well as any maximum-duration provisions) and the average daily cost of hospitalization (including both room and board, and all other hospital services--averaged out on a daily basis).

II. Average Hospital Utilization

First, considering the element of average hospital utilization, the basic procedure is to make the detailed calculations for a 60-day maximum provision and then to modify the overall results for the differences in the provisions of the particular proposal. The basic data used for these cost estimates are presented in Table 2, which shows hospital utilization rates on both low-cost and high-cost bases. The "hospital utilization rate" is defined as the average number of hospital days experienced per person exposed to risk. In other words, such rates are the result obtained by multiplying the proportion of persons experiencing hospitalization by the average duration of hospitalization for those hospitalized.

(a) Source of Basic Data

The basic data are from the 1957 Survey of Beneficiaries conducted by the Social Security Administration, but with modifications to recognize that the availability of benefits will result in greater utilization than that reported in the Survey. In addition, the basic data have been adjusted upward to allow for hospitalization of persons dying during the year, who were not reported in the Survey.

The adjustments for the availability of hospitalization benefits were made in the following manner (described in more detail on pages 77-78 of the 1959 Hospitalization Report[c]). For the high-cost estimate, the admission rate used was the same as the rate reported in the Survey for those with insurance (approximately 60% higher than the reported rate for those without insurance). The average duration of hospitalization for the high-cost estimate was taken to be the same as that reported in the Survey for those with insurance and those without insurance combined (the average duration for the latter category was about 50% higher than for the former)--this assumption is, of course, a "conservative" one.

For the low-cost estimate, the hospital utilization rate was obtained by weighting such rate for insured persons in the Survey by the proportion of insured persons and by weighting the average hospital utilization rate for all persons in the Survey (about 5% higher than the actual experience for the uninsured group) by the proportion of those in the Survey without insurance. Also, a downward adjustment of the hospital utilization rate was made for men aged 65-69 to reflect the fact that utilization is substantially lower among employed persons than among retired persons (a large proportion of the eligibles in this age group will be employed). In connection with the latter point, it should be noted that the beneficiary group surveyed consisted of retired persons; thus, making no such downward adjustment in the high-cost estimate added an element of conservatism. Operating in the other direction, however, is the factor that utilization of the proposed health benefits by persons with insurance in the past may be somewhat increased because of the greater protection available in many

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c/ "Hospitalization Insurance for OASDI Beneficiaries", a Report Submitted to the Committee on Ways and Means by the Secretary of Health, Education, and Welfare, April 3, 1959.

Table 2

HOSPITAL UTILIZATION RATES FOR OASDI BENEFICIARIES AGED 65 AND OVER, 60-DAY MAXIMUM, ACCORDING TO 1957 BENEFICIARY SURVEY

(average days per person per year)

Age Group	Low-Cost Estimate			High-Cost Estimate		
	Before Correction for Decedents	Correction for Decedents[a]	Corrected Rate	Before Correction for Decedents	Correction for Decedents[a]	Corrected Rate
			Men			
65-69	1.59	.34	1.93	2.18	.43	2.61
70-74	1.66	.48	2.14	2.01	.60	2.61
75 and over	2.44	.93	3.37	3.46	1.17	4.63
65 and over[b]	1.85	.55	2.40	2.49	.69	3.18
			Women			
65-69	1.59	.20	1.79	1.73	.25	1.98
70-74	2.42	.31	2.73	2.65	.38	3.03
75 and over	2.53	.78	3.31	3.11	.97	4.08
65 and over[b]	2.09	.38	2.47	2.36	.47	2.83
			Total Persons			
65 and over[b]	1.97 (2.08)	.47 (.52)	2.44 (2.60)	2.43 (2.57)	.58 (.66)	3.01 (3.23)

[a] Based on average stay of 8 days for low-cost estimate and 10 days for high-cost estimate and on death rates from U. S. Total Population Life Tables for 1949-51.

[b] Obtained by weighting the rates by age and sex by the estimated OASDI "eligible" population as of the beginning of 1960. Figures in parentheses are based on weighting by the stationary population of the U. S. Total Population Life Tables for 1949-51.

Note: The figures shown above for "corrected rates" are the same (except for one correction) as those in the table on page 101 of the 1959 Hospitalization Report.

instances (where the deductible does not have an offsetting effect). Also, the Survey data included hospital utilization in Veterans Administration hospitals; this factor results in an overstatement of the estimated utilization that would arise under HI proposals, since a significant proportion of persons would continue to use the VA facilities (the use of which involves no cost to the individual for deductibles or maximum limits and which also provide free medical care), rather than draw the HI benefits.

The assumptions in the low-cost estimate produce costs only slightly above the Beneficiary Survey experience. This basis seems plausible for the near-future (and is used in the cost estimates in the first few years). For the long-range future, this low-cost assumption may be said to give recognition to the possibility of success of current efforts for progressive patient care, for reductions in hospitalization costs resulting from development of outpatient hospital diagnostic facilities, and for progressive cost-reducing trends in medical practice.

(b) Comparison of Basic Data with Those from Other Sources

Hospital utilization data from the National Health Survey, for July 1958 to June 1960 ("Hospital Discharges and Length of Stay: Short-Stay Hospitals, United States, 1958-1960", Health Statistics from the U. S. National Health Survey, Series B - No. 32, April 1962, Public Health Service, U. S. Department of Health, Education, and Welfare), have been used to develop utilization rates comparable with those obtained from the Beneficiary Survey data. These data for hospital utilization rates (average days per person per year) are shown in the following table (without adjustment for decedents):

Category	National Health Survey: As Shown in Report	National Health Survey: Adjusted to 60-day Maximum[a]	Low-Cost Estimate from Table 2
Men, aged 65-74	2.54	2.21	1.62[b]
Men, aged 75 and over	2.78	2.42	2.44
Women, aged 65-74	1.61	1.40	1.94[b]
Women, aged 75 and over	2.18	1.90	2.53
Total, aged 65 and over	2.19[b]	1.91	1.99[b]

a/ Based on total hospital utilization with no maximum limitation being 15% higher than with 60-day maximum.

b/ Obtained by weighting the rates by age (and, where applicable, by sex) by the estimated OASDI "eligible" population as of the beginning of 1960.

In the aggregate, the hospital utilization rates derived from the NHS data are very close to those developed from the 1957 Beneficiary Survey on the "low-cost" basis. Furthermore, it should be noted that the NHS data have some upward bias since they include utilization of Federal hospitals, which would not be covered under the bill (about 10% of all hospital days--for persons of all ages--were in Federal hospitals).

Hospital utilization data have also been derived from the 1963 Survey of the Aged. The scope of this Survey is described in an article by Lenore A. Epstein, "Income of the Aged in 1962: First Findings of the 1963 Survey of the Aged", Social Security Bulletin, March 1964. A considerable amount of the findings in regard to hospitalization is contained in an article by Dorothy P. Rice, "Health Insurance Coverage of the Aged and Their Hospital Utilization in 1962: Findings of the 1963 Survey of the Aged", Social Security Bulletin, July 1964. In order to make a valid comparison with the hospital utilization data that are used in these cost estimates, the data from the Survey of the Aged have been adjusted so that hospitalization in short-stay hospitals that is in excess of 90 days has been eliminated.

Table 3 compares the hospital utilization rates for OASDI beneficiaries aged 65 and over as derived from the Survey of the Aged (without correction for decedents) according to whether the individuals had insurance. Unlike previous studies, there appeared to be no significant difference in hospital utilization depending upon whether or not the individual had insurance. For men, the weighted rate for all ages combined was virtually the same as between those that had insurance and those that did not have insurance. Although the aggregate rate for women with insurance was about 20% higher than for women without insurance, this was apparently due to the sizable differential for age group 80-84; in fact for three of the other four age groups the "without insurance" category showed higher utilization.

Table 4 presents the hospital utilization rates for OASDI beneficiaries aged 65 and over for the data from the Survey of the Aged, combining the data for those with and without insurance. The intermediate correction for decedents is made in order to obtain corrected rates that will be on a comparable basis with those shown in Table 2. The aggregate weighted utilization rate is 3.15 days, but this should be further adjusted because of the 90-day limit, since in Table 2 the data are based on a 60-day limit. When such an adjustment is made for Table 3, the utilization rate becomes 2.89 days. This is about 10% higher than the utilization rate in Table 2 based on the low-cost estimate (taking the comparable weighted average on the basis of the stationary population of the U.S. Total Population Life Tables for 1949-51) and is slightly lower than the intermediate-cost estimate based on the data in Table 2 (a utilization rate of 2.92 days, being the average of 2.60 days and 3.23 days).

In the aggregate, it may be said that the hospital utilization rates derived from the 1963 Survey of the Aged are very close to those developed from the 1957 Beneficiary Survey, which are used as the fundamental basis of the cost estimates in this report. Again, it should be pointed out that there is a certain margin of safety in the utilization rates developed from both the Beneficiary Survey and the Survey of the Aged. The data for these rates are based on the experience of beneficiaries

Table 3

COMPARISON OF HOSPITAL UTILIZATION RATES FOR OASDI BENEFICIARIES AGED 65 AND OVER, 90-DAY MAXIMUM, SUBDIVIDED BY WHETHER WITH INSURANCE, ACCORDING TO 1963 SURVEY OF THE AGED

(average days per person per year)

	Men		Women	
Age	With Insurance	Without Insurance	With Insurance	Without Insurance
65-69	1.77	2.32	2.35	1.85
70-74	3.49	2.42	2.05	2.08
75-79	2.68	2.50	2.67	3.00
80-84	3.46	3.81	4.63	2.08
85 and over	2.12	3.69	2.12	2.63
65 and over[a]	2.63	2.64	2.68	2.24

a/ Based on age distribution of stationary population in U.S. Total Population Life Tables for 1949-51.

Table 4

HOSPITAL UTILIZATION RATES FOR OASDI BENEFICIARIES AGED 65 AND OVER, 90-DAY MAXIMUM, ACCORDING TO 1963 SURVEY OF THE AGED

(average days per person per year)

Age	Survey Rate	Correction for Decedents[a]	Corrected Rate
		Men	
65-69	2.01	.37	2.38
70-74	3.00	.54	3.54
75-79	2.59	.78	3.37
80-84	3.66	1.13	4.79
85 and over	2.65	2.04	4.69
65 and over[b]	2.62	.68	3.30
		Women	
65-69	2.16	.23	2.39
70-74	2.06	.38	2.44
75-79	2.82	.61	3.43
80-84	3.29	.96	4.25
85 and over	2.53	1.84	4.37
65 and over[b]	2.44	.59	3.03
		Total Persons	
65 and over[b]	2.52	.63	3.15

a/ Based on average stay of 9 days and on death rates from U. S. Total Population Life Tables for 1949-51.

b/ Based on age distribution of stationary population in U. S. Total Population Life Tables for 1949-51.

receiving cash benefits, whereas the beneficiaries under the proposed HI program would also include active workers and their eligible spouses aged 65 and over (who, on the average, are younger and in better health than the retired beneficiaries). Also, the data in the surveys include utilization of Federal hospitals, which would not be covered under the bill.

(c) Modification of Survey Data to Allow for Decedents

The hospital utilization rates derived from the Beneficiary Survey, modified as described above to allow for the effect of benefits being available as a right, must be corrected to allow for hospitalization used by persons dying during the survey year, who were not included in the Survey. For both cost estimates, this correction was obtained for each age-sex group by applying to the estimated proportion dying in a year an assumed average number of days of hospitalization for decedents (8 days for the low-cost estimate and 10 days for the high-cost estimate). As indicated by Table 2, the relative size of this correction naturally varies considerably by age and sex. For both cost estimates, the correction amounts to about 24% of the rate derived from the Beneficiary Survey for all ages combined, but it is as little as about 15% for women aged 65-69 and as much as 35% for men aged 75 and over. The absolute amount of the correction for decedents averages .53 days for a cost estimate intermediate between the low-cost and high-cost ones.

An extensive study on the general subject of correcting hospital utilization rates derived from surveys so as to allow for decedents has been conducted by the Public Health Service, based on data from New Jersey, New York, and Pennsylvania during 1957. ("Hospital Utilization in the Last Year of Life," Health Statistics from the U.S. National Health Survey, Series D - No. 3, January 1961). On the whole, after modifications to obtain comparability, the results of this survey agree reasonably well with the adjustments made in the cost estimates for the effect of the exclusion of decedents from the Beneficiary Survey.

The aforementioned NHS report shows that for persons aged 65 and over, the unadjusted utilization rate was 1.67 days per person per year, while the rate adjusted for decedents was 2.33 days. This is a difference of .66 days, or a relative increase of 39%. The absolute correction for decedents of .66 days in the NHS report is somewhat higher than used in these cost estimates (.53 days on the basis of the current age-sex distribution of the eligibles). The correction based on NHS data, however, did not include the effect of a 60-day maximum, which of course would have the effect of reducing the absolute correction (in days) and also the unadjusted utilization rate. Furthermore, it was derived from a population that is somewhat older on the average than the present OASDI eligible population (which includes those who are not current beneficiaries because of the retirement test), since the latter includes a higher proportion of the total aged population at the ages just beyond 65 than it does at the oldest ages.

The percentage increase due to this correction factor was higher in the NHS report than in these cost estimates (39% vs. 24%), both because of the foregoing two elements and because the absolute increase of the "decedent" adjustment (in terms of days) was measured against a lower unadjusted rate, computed solely on the basis of reported experience of persons alive at date of interview (namely, 1.67 days in the NHS report as compared with the 2.21 days in the Beneficiary Survey). Current NHS statistics on hospital utilization by the population alive at date of interview are higher than formerly reported--as a consequence of the improved data-collection procedures now followed. Accordingly, when measured against this higher base, the days used by decedents would raise the estimated days used by all the aged (derived from the experience of survivors) by a significantly lower amount than 39%, especially after further adjustment for a 60-day limit and for age distribution. Therefore, the use of a 24% correction factor for the data used in this Study appears reasonable.

As a further point of comparison, the NHS data shows that the average number of days of hospitalization per decedent is 9.57. After allowing for the effect of the 60-day maximum, this tends to confirm the assumption in these cost estimates of 8 days for the low-cost estimate and 10 days for the high-cost estimate.

A growing body of additional data on hospitalization experience of persons aged 65 and over, subdivided by health-insurance ownership and other relevant characteristics, is available from the National Health Survey. In some respects these findings are at variance with those from the Beneficiary Survey, partly because of the later time period and differing population groups represented, and partly because of differences in survey techniques. On balance, the present cost estimates would be little changed if NHS data were substituted for corresponding Beneficiary Survey data.

(d) Effect of Various Maximum-Duration Provisions

The foregoing discussion has related to the derivation of hospital utilization rates on the basis of a 60-day maximum provision. It is assumed that such rates apply with equal accuracy whether the maximum relates to a calendar year, a benefit year, or a benefit period as defined in the bill. Proceeding from those basic cost factors, modifications have been made for proposals considered from time to time in the past that have had different maximum-duration periods or that introduced deductibles (whether expressed in terms of the first "n" days of hospitalization, a flat dollar deductible regardless of length of hospitalization, or a uniform dollar deductible per day for the first "n" days of hospitalization).

The relative effect on the cost factors of increasing the maximum duration of benefits from 60 days to various other durations is as follows: 90 days - 9%; 120 days - 10½%; 180 days - 12%; and 360 days - 15%. Conversely, if the maximum duration is reduced from 60 days to 21 days, the cost is lowered by 15%. These factors have been derived from consideration of data from the National Health Survey and from private insurance experiences.

In considering the cost effects of maximum-duration and deductible provisions on hospitalization-cost factors, it is necessary to have what is termed a hospitalization continuance table applicable to the particular beneficiary group involved. Such a table for persons aged 65 and over was derived from data from the National Health Survey ("Hospitalization: Patients Discharged from Short-Stay Hospitals, United States, July 1957-June 1958", Health Statistics from the U.S. National Health Survey, Series B - No. 7, December 1958, Public Health Service, U.S. Department of Health, Education, and Welfare) and is summarized in Table 5.

III. Average Daily Cost of Hospitalization

The second element in hospitalization-benefit cost estimates is the average daily cost (including both room and board and other hospital costs).

(a) Past Increases in Hospital Costs and in Earnings

Table 6 presents a summary comparison of the annual increases in hospital costs and the corresponding increases in earnings that have occurred since 1954 and up through 1963.

The annual increases in earnings are based on those in OASDI covered employment, as indicated by first quarter taxable earnings, which by and large are not affected by the maximum taxable earnings base. The data on increases in hospital costs are based on a series of average daily costs (including not only room and board, but also other charges) as prepared by the American Hospital Association.

The annual increases in earnings have fluctuated somewhat over the 10-year period, although there have not been too large deviations from the average annual rate of 4.0%; no upward or downward trend over the period is discernible. The annual increases in hospital costs likewise have fluctuated from year to year around the average annual rate of 6.7%; the increases in the last 2 years were relatively low as compared with previous years.

Hospital costs then have been increasing at a faster rate than earnings. The differential between these two rates of increase has fluctuated widely, being as high as somewhat more than 5% in some years and as low as a negative differential of about 1% in 1956 (with the next lowest differential being a positive one of about 1% in 1962). Over the entire 10-year period, the differential between the average annual rate of increase in hospital costs over the average annual rate of increase in earnings was 2.7%.

It is conservative to assume that earnings will increase in the future at about 3% per year. It is difficult--and perhaps impossible--to predict precisely what the corresponding increase in hospital costs will be. It would appear that, at the least, hospital costs would, on the average, increase perhaps 2% per year more than earnings for a few years and that at the most, hospital costs would increase in the near future at an average annual rate that is 3% in excess of that for wages. It is recognized, of course, that these "minimum" and "maximum" assumptions result in a relatively wide spread in the cost estimates for hospital insurance proposals if the estimates are carried out for a number of years into the future.

Table 5

ABRIDGED HOSPITALIZATION CONTINUANCE TABLE FOR PERSONS AGED 65 AND OVER FOR 60-DAY MAXIMUM BENEFIT

(days of hospitalization per 100 persons)

Waiting Period (days)	Proportion Hospitalized for		Days of Hospitalization for Those With		Hospitalization Excluded by Waiting Period	
	Exactly the Length of the Waiting Period	Length of the Waiting Period or a Shorter Time	Exactly the Length of the Waiting Period	Length of the Waiting Period or a Shorter Time	Days	Proportion
1	3.8%	3.8%	3.8	3.8	100.0	7.2%
3	6.6	17.5	19.8	37.8	285.3	20.6
5	6.0	29.8	30.0	93.0	444.0	32.0
7	5.6	41.2	39.2	167.0	578.6	41.7
10	4.5	56.0	45.0	299.4	739.4	53.3
14	3.1	70.9	43.4	483.8	891.2	64.3
20	1.2	81.5	24.0	664.3	1034.3	74.6
30	.6	89.6	18.0	866.4	1178.4	85.0
60	.1	95.0	306.0[a/]	1386.1[a/]	b/	b/

a/ Including 60 days of hospitalization for the 5.0% who are hospitalized more than 60 days.

b/ Not meaningful (to have waiting period coincide with maximum benefit-period covered).

Source: Based on data from the National Health Survey (Health Statistics, Series B-7, December 1958, Table 14), Public Health Service, U.S. Department of Health, Education, and Welfare.

Table 6

COMPARISON OF ANNUAL INCREASES IN HOSPITALIZATION COSTS AND IN EARNINGS

Calendar Year	Increase Over Previous Year: Average Earnings in Covered Employment	Increase Over Previous Year: Average Daily Hospitalization Costs
1955	3.8%	6.3%
1956	5.7	4.5
1957	5.5	7.7
1958	3.3	8.6
1959	3.3	6.8
1960	4.3	6.8
1961	3.1	8.5
1962	4.2	5.3
1963	2.4	5.6
Average[a]	4.0	6.7

[a] Rate of increase compounded annually that is equivalent to total relative increase from 1954 to 1963.

(b) Assumptions in Cost Estimates Made Before 1963

The 1959 Hospitalization Report derived a figure of $21 a day for persons aged 65 and over in 1956 (see pp. 79-80). This figure was used as the basis for the long-range actuarial cost estimates made for that Report, since all the actuarial cost estimates for the OASDI system made at that time used the 1956 general earnings level. The figure, however, was adjusted upward by 14% (to $24) to take into account the fact that, before 1956, hospital charges had been increasing more rapidly than the general wage level and would probably do so for at least a few more years. The basis of the 14% increase was the assumption that over the next 4 or 5 years after 1956, hospital charges might increase at an average rate of about 6% (perhaps 7-8% in the beginning and lessening amounts thereafter) before an assumed leveling-off so as to have the same rate of increase as the general wage level. It should be noted that by "leveling off" is meant that such effect would occur as an average trend in the future period, and not exactly in each and every year. Thus, during this short-run period, the cost estimates made in 1959 assumed that the "real increase" of hospital costs in relation to the general wage level might begin at 3-4% a year and then decline, so that a cumulative relative increase of 14% would precede the leveling-off at the end of the 4-5 year period.

An analytical study was made in 1959 as to the reasonableness of assuming that after this 14% relative increase, there would be a leveling-off as between hospitalization costs and the general wage level. The data seemed to indicate that in the years since World War II, hospital daily costs have been increasing in a linear manner (at a rate of about $1.60 per year), and that wage rates have been increasing geometrically. Accordingly, although in the recent past the difference between these two trends series has been about 3-4% per year, this difference seemed to be declining somewhat.

In early 1962, the long-range cost estimates for the hospitalization benefits were again re-examined, this time on the basis of the 1961 earnings levels and with consideration of the relative recent trends of hospital costs, taxable wages, and total wages. In brief, the results of this reconsideration were that both hospital-benefit costs and the "savings" to the OASDI system from raising the earnings base were increased--the former rising somewhat more than the latter.

The long-range cost estimates of Actuarial Study No. 57 were based on level-earnings assumptions, at the 1961 level. Another--and equally acceptable--way of describing the earnings-assumption basis of these long-range cost estimates insofar as the resulting level-cost figures are concerned is to state that they are based on the assumption that if earnings rise, the deductible provisions and the earnings base will be kept up-to-date with their relative positions in 1961. Such assumed keeping up-to-date would not, of course, have to be done every year in the future that earnings rose, but would--in order to be consistent with the cost-estimate assumptions--have to be done at intervals of every few years, when such rises in earnings occur. It should be strongly emphasized that the savings resulting in the cash-benefits portion of the system when earnings rise and when the earnings base is increased would not need to be used to keep the HI portion of the system soundly financed, but rather the need would be fulfilled by having the HI contribution rate applied to a larger taxable payroll.

Further, it may be noted that, for at least a number of years, the financial soundness of the program as determined under level-earnings assumptions would be maintained even though the earnings base and the deductibles were not kept up-to-date if the gains resulting under the OASDI cash-benefits portion of the system as wages rise were used, at least in part, to offset the increased cost (as a percentage of taxable payroll) arising for the hospital-benefits portion of the system and that hospital-benefit costs do not increase more than OASDI cash-benefit costs decrease. This, however, would require repeated legislative action to increase the allocation rates for the HI Trust Fund and at the same time to decrease correspondingly the allocation rates for the OASI and DI Trust Funds. If this practice is followed, it would mean that over the long run there would not be available sufficient funds for the cash benefits to be kept up-to-date with changing earnings levels.

At this point, it may be worthwhile digressing to discuss the effect on the cost of the OASDI cash benefits of increasing-earnings trends. The benefit formula is "weighted" so that relatively higher benefits are paid to those with low earnings than to those with higher ones. For example, under present law the primary benefit for an average monthly wage of $300 is $105 per month (or 35.0% of average wage), while the corresponding benefit for an average monthly wage of $360 is $118 per month (32.8% of average wage). Thus, for an average wage that is 20% higher, the primary benefit increases only 12.4%. The effect on the financing of the program is evident, since contributions increase directly proportionately with increases in covered earnings, whereas benefits rise less than proportionately. In addition, there is the decreasing-cost effect that results from the lag involved when earnings levels rise, since the average wage is, in essence, a lifetime one and thus is affected by the lower earnings levels of the past.

The long-range actuarial cost estimates for the OASDI system always have assumed that earnings would be level in the future at about the level currently prevailing at the time the estimates were made. It has been recognized that if earnings levels rise in the future--as they have in the past--the benefit level and the taxable earnings base will undoubtedly be modified. Rising earnings will automatically "generate" savings to the system that can be utilized for such purposes as keeping it up-to-date, although the savings may not be sufficient to do this completely.

Another factor that results in "automatic generation" of savings to the OASDI system of cash benefits is the effect of raising the earnings base for tax and benefit-computation purposes. The reason for this effect is also due to the "weighted" nature of the benefit formula. Such changes have been made a number of times in the past[d/] for the purpose of keeping this element of the program up-to-date.

[d/] The earnings base was $3,000 during 1937-50, $3,600 during 1951-54, and $4,200 during 1955-58, and it has been $4,800 since 1959.

In the past, the savings to the OASDI system resulting from the above two factors (rising-earnings levels considered alone, and increases in the maximum earnings base) have been utilized to keep the benefit structure up-to-date by such changes as increasing the general benefit level, adding new types of benefits, and liberalizing existing benefit provisions.

(c) Assumptions in Cost Estimates Made for 1963 Administration Proposal

In the long-range cost estimates of Actuarial Study No. 57 the average hospital daily cost for OASDI beneficiaries aged 65 and over was taken to be $31.30 (on the basis of 1961 price and earnings levels and on the basis of the 1961 age and sex distribution of the beneficiaries); this includes a 3% allowance for administrative expenses of the OASDI system for the hospitalization and related benefits (as discussed subsequently). This average hospital daily cost is adjusted in future years for the changing age-sex distribution of the beneficiary roll (thus, allowing for the "aging" of this group).

The figure of $31.30 was derived in the following manner. The average hospital-expense per patient-day in short-term general and special non-Federal hospitals for 1961 was estimated by the American Hospital Association at $34.98 (see Health, Education, and Welfare Trends, 1962 Edition U. S. Department of Health, Education, and Welfare, page 24). In accordance with adjustment procedures described in the 1959 Hospitalization Report (page 79) and for reasons indicated subsequently in this report, this figure should be reduced by 13%[e] to yield the estimated average reimbursable hospital daily cost for persons aged 65 and over. The resulting figure of $30.40 was then increased by 3% to yield the hospital daily cost for persons aged 65 and over, including allowance for administrative expenses.

It should be pointed out that the foregoing figure for the average hospital daily cost for persons covered by the proposal did not include an allowance for a "catching-up" factor, as was previously done. In other words, the assumption made was that, following 1961, hospital costs would, on the average, increase no more rapidly than the general earnings level (as indicated previously, if such changes do occur, then it is further hypothesized that the system will be kept up-to-date insofar as the maximum earnings base and the deductibles are concerned). Although it seemed likely that hospital costs would increase somewhat more rapidly than the general earnings level in the next few years, it was presumed that any such differential would, over the long run, be counterbalanced by hospital costs rising less rapidly than the general earnings level (thus reflecting, although not nearly to the same extent as in other areas of economic activity, some productivity gains in the work force involved).

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[e] This is the decrease from the 1956 figure of $24.15 in the AHA series to the adjusted figure of $21.00 used for OASDI beneficiaries.

The short-range cost estimates in Actuarial Study No. 57 assumed that hospitalization costs would increase from the actual 1961 level at an annual rate of 4%--part of this representing the increase in the general earnings level, and the remainder reflecting the higher differential rate of increase of hospital costs relative to the general earnings level. The resulting estimated average hospital daily costs for persons aged 65 and over who are OASDI beneficiaries, exclusive of the 3% allowance for administrative expenses, were $35.60 for 1965 and $37.00 for 1966. The latter figure was the basis for the rounded figure of $37 that was the presumed average daily hospital charge used in the "180-day maximum hospital duration" alternative.

The foregoing figures for average hospital daily costs for OASDI beneficiaries aged 65 and over are not completely comparable with similar figures in the annual series issued by the American Hospital Association for persons of all ages because of three reasons:

(1) The average daily cost for persons aged 65 or over is lower than for persons of all ages. The hospitalization experience data on which the cost estimates are based indicate that, on the average, persons aged 65 or over have significantly longer durations. Accordingly, since the generally high costs for hospital extras (such as use of operating room, laboratory tests, etc.), which most often occur in the first few days of hospitalization, are averaged over longer periods consisting generally of room-and-board costs only in the later days, the overall average will be lower than for younger persons.

(2) The reimbursable costs under the bill would not include all the costs that go into the AHA figures (such as those for research, outpatient services, and public dining facilities).

(3) The average daily cost developed by the AHA is based on all hospital facilities--private rooms, semi-private rooms, and wards--whereas the various HI proposals, in essence, provide semi-private room care.

(d) Assumptions in Cost Estimates Made for Legislation in 1964

As indicated in the previous subsection, the assumption as to average daily cost that was made in connection with the 1963 Administration proposal was that, over the long range, hospitalization costs would increase after 1961 at the same rate as the general wage level. In the legislative consideration of the HI proposals during 1964, it was decided that, although the previous assumptions were reasonable, it would be equally reasonable to make somewhat more conservative assumptions--namely, that the estimated 10% differential of hospitalization costs over wages in 1961-65 would be incorporated and that, over the next few years after 1965, hospitalization costs would rise more rapidly than wages and that thereafter they would increase at the same average rate, with the aggregate differential amounting to 10%. In essence then, this revised assumption meant about a 20% increase in the long-range cost estimates for HI proposals.

(e) Assumptions in Cost Estimates of This Report

The Advisory Council on Social Security Financing, which was appointed in 1963 and completed its work by the end of 1964, considered the subject of hospitalization benefits and made significant recommendations in this area that were quite similar to the corresponding provisions contained in H.R. 1[f]. The Advisory Council stressed that the assumptions used in estimating HI costs should be conservative (i.e., where judgement issues arise, they should be resolved in a direction that would yield a higher cost estimate). The assumptions suggested by the Advisory Council were that the estimated 1965 hospitalization costs should be assumed to increase in the future in relation to total earnings rates by a net differential of 2.7% per year for the first 5 years after 1965, with this differential than being assumed to decrease to zero over the next 5 years; then during the following 5 years, the differential is assumed to reverse and then earnings are assumed to rise at an annual rate that is 0.5% greater than the increase in hospitalization costs.

The net effect of these modified cost assumptions made by the Advisory Council, for purposes of the long-range cost estimates, is to produce level-costs that are about 20% higher than those resulting from the assumptions used in Actuarial Study No. 57 and that are about the same as those resulting from the assumptions used in connection with the estimates made for the 1964 legislative activity. For short-range purposes, however, the modified assumptions produce significantly higher estimates than either of the other two sets of assumptions.

The cost estimates contained in this report are based on the same assumptions as to the relationship of long-range hospitalization cost trends and general earnings trends as was done in the Report of the Advisory Council. For the long-range cost estimates, the base figure for average daily hospitalization cost was taken for the year 1963, since the cost estimates for both the cash benefits and the HI benefits are founded on this basic assumption (which, in turn, means that there is also the coordinate assumption that the earnings base will, in the future, keep up-to-date with what $5,600 represented in 1963). The average daily hospitalization cost shown by the AHA series for 1963 was $38.91 (see Health, Education, and Welfare Trends, 1964 Edition, U.S. Department of Health, Education, and Welfare, page 23). When this is adjusted by the

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[f] For further details on this matter and on the cost assumptions made, see "The Status of the Social Security Program and Recommendations For Its Improvement--Report of the Advisory Council on Social Security, 1965". This report has been published as a separate document, but it will be an appendix to the 25th Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance Trust Fund and the Federal Disability Insurance Trust Fund, scheduled to be published in March 1965.

13% reduction factor mentioned previously, so as to give an appropriate figure for the HI proposal, it becomes $33.85 (before allowance for administrative expense, which is estimated at 3% of the benefit cost). It is then assumed that this average daily cost will increase by 2.7% per year (the average differential between hospitalization costs and earnings during 1954-63) until 1965 and that thereafter the assumed differentials recommended in the Advisory Council assumptions prevail.

For the purposes of the short-range cost estimates, which allow for an increasing trend in general earnings (as well as the aforementioned differential between hospitalization costs and general earnings), the assumptions made result in an estimated average daily cost of $40.06 for 1966 and $42.38 for 1967.

IV. Intermediate-Cost Estimates for Hospitalization Benefits

As indicated previously, low-cost and high-cost factors were developed for hospital utilization rates. An intermediate-cost factor is necessary for purposes of determining the financing basis of the program. In order to arrive at such a factor for the long-range estimate, the low-cost and high-cost factors were averaged and were applied to the intermediate estimate of persons aged 65 and over who are entitled (or could become entitled upon application) to monthly cash benefits under the OASDI system.

In considering the figures actually presented for the intermediate-cost estimate, it should be kept in mind that a considerable range of variation is possible. The spread from the intermediate-cost estimate to the high-cost estimate (or to the low-cost estimate) is approximately 10% due to the hospitalization element alone, and perhaps another 15% due to the range of variation inherent in the basic OASDI cost estimates.

The cost figures shown for the first few years incorporate the low-cost assumptions as to hospital utilization (to allow for the normal lag in making "use" of insurance benefits), but thereafter the intermediate-cost factors are used.

V. Cost Estimates for Post-Hospital Extended Care Benefits

It is very difficult to make estimates for post-hospital extended care benefits because currently such facilities are not uniformly available in adequate amount in all sections of the country, and even more so because there are a number of different concepts under which these benefits might be operative or be utilized by the medical profession. At the one extreme, such a benefit might be utilized almost entirely for very limited convalescent care and be applicable to only a relatively few cases. At the other extreme, the benefit might be utilized so broadly as to provide care that tends to emphasize the domiciliary element far more than extended care (naturally, both elements must be present, but much importance hinges on the relative predominance of one feature or the other). In fact, there is the question of whether, with the availability of this benefit, hospitalization will occur that, under present circumstances, would not be considered necessary and proper, and whether then post-hospital extended care benefits will be provided following these hospital stays.

The bill provides that post-hospital extended care benefits be available only upon transfer from in-patient status in a hospital for further treatment of the condition that resulted in the hospitalization. It is not possible to know from the written definition exactly what the actual admitting and transferring practices may be. In the early years of operation, one limitation on the costs for this benefit will, of course, be the limited availability of qualifying facilities. In the long run, however, this cannot reasonably be regarded as a cost-control factor.

In the 1959 Hospitalization Report, cost estimates were made for a strictly administered "recuperative care only" skilled-nursing-home benefit (and also for much broader provisions)--see pages 83-84. The original cost estimates for this very limited benefit were based on the experience of a few Blue Cross plans having such a benefit. The available data suggested that there might be annual utilization of 10 days of such care per 100 beneficiaries protected by this type of benefit. Since the average daily cost would be about $10, this produced, for the original cost estimates, an aggregate average cost of $1 per year per person aged 65 and over entitled to monthly OASDI cash benefits applicable to the initial years of operation.

Subsequent staff consideration of skilled-nursing-home benefits analyzed the various elements involved in the cost of this type of benefit, namely:

(1) Present number of skilled-nursing-home beds;

(2) Number of such beds that are acceptable according to reasonable standards;

(3) Estimated needed beds;

(4) Proportion of beds occupied;

(5) Proportion of occupied beds used by aged persons;

(6) Proportion of the aged occupants of beds that consists of OASDI beneficiaries;

(7) Proportion of occupants with duration less than 6 months;

(8) Proportion of occupants who entered the nursing home by transfer from a hospital; and

(9) Average daily cost.

Use of the above data and analysis can produce a wide spread in the cost estimates--both short-range and long-range. This is particularly the case under the limited benefit protection provided by the current bill.

In the first full year of operation, the cost would be relatively low because of absence of facilities and because of lack of knowledge of the benefits available. In the next few years of operation, the cost would rise steadily as new facilities are built to meet the demand or as existing facilities are improved to meet the qualifying conditions (and in recognition of the money available from the benefits).

The long-range cost of these benefits would be higher than the early-year costs for a number of reasons--an increase in the number of available beds to meet the demands, OASDI beneficiaries being a larger proportion of the total population aged 65 and over, and a greater utilization of the benefits available.

The cost estimates of Actuarial Study No. 52, Actuarial Study No. 57, and this report recognize these factors that produce higher long-range costs, and they also recognize the differences in the concept of this benefit and of the eligible facilities for furnishing them that exist as between the various legislative proposals. Also, they take into account the fact that part of the cost arising for these benefits, when more widely utilized, will be an offset to the cost for hospitalization benefits. In the present estimates, it is assumed that this offset represents 33% of the cost of the post-hospital extended care benefits and is taken as an offset against the hospitalization-benefits cost.

VI. Cost Estimates for Home Health Services Benefits

The original estimates for home-health-service benefits were based on an assumed annual cost of $1 per eligible beneficiary. This assumption was based on such limited experience with this benefit as was available, taking into account also the limited general availability of such services at present. For the foregoing reason, it is likely that this is the cost that will develop in the early years of operation of the program. In later years, however, it seems reasonable to assume that this type of service will become generally available throughout the country, since there will be the money to pay for it.

A study made by the Kansas Blue Cross and Blue Shield indicates that for persons aged 65 and over, the annual per capita cost was almost $6. Over the long-range, for the country as a whole, it seemed that this was a much better figure to use than the previous figure of $1, and so this figure was used in Actuarial Study No. 52, Actuarial Study No. 57, and this report.

If there are significant expenditures for home health services benefits, this should mean somewhat lower hospitalization and post-hospital extended care benefit costs. In fact, in cases where a person would otherwise be in the hospital but is instead receiving the much less expensive home health services, there would actually be a net savings in cost to the program, or in other words the program would cost less because of the inclusion of this type of benefit. It is believed, however, that any such savings will be more than offset by the home health services being made available to people who would not otherwise be in hospitals or extended care facilities. Nonetheless, with the availability of these home health services on an expanded national basis, there should be some offset taken against the hospitalization-benefits costs that would otherwise occur if there were no home health services benefits. This adjustment has been taken as 40% of the estimated cost for home health services benefits and is taken as an offset against the hospitalization-benefits cost.

VII. Cost Estimates for Outpatient Hospital Diagnostic Services Benefits

The cost estimate for the outpatient hospital diagnostic services benefits was first made on the basis that there would be no deductible. Relatively little experience is available in regard to the cost of this benefit for a group consisting of persons aged 65 and over. Such Blue Cross and insurance company experience as there is seems to indicate that the annual cost per capita will be about $7.50 (spread over the total protected population and not merely among those who will use this benefit).

From a cost standpoint, the effect of a monthly deductible equal to 50% of the average daily hospitalization cost will be significant. This deductible provision will reduce the aggregate cost by an estimated 80%, since most of the charges for these services will be relatively small amounts, such as $10 for an X-ray. The number of claims will also be reduced by about 80% by the deductible provision, and thus a considerable amount of the administrative costs otherwise involved in paying a large number of small claims will be eliminated. The relative magnitude of the reduction arising from such a deductible tends to be verified by a study of the actual charges of hospital outpatients covered under group insurance policies (see "A Reinvestigation of Group Hospital Expense Experience" by S. W. Gingery in Transactions, Society of Actuaries, Vol. XII, 1961, which gives data on such claims by size intervals).

VIII. Estimated Administrative Expenses

It is assumed that the administrative expenses that will be chargeable to the Hospital Insurance Trust Fund for processing the benefit claims and for a pro-rata share of the cost of maintaining the earnings records and collecting the contributions will represent 3% of the benefit disbursements. This 3% element is included in the cost figures for each of the various types of benefits, as described previously. This figure is consistent with the relative administrative costs of the most efficiently-run Blue Cross plans. The latter generally have administrative costs somewhat above 5% of premium collections, but this is because they have expenses that would not arise in connection with hospital benefits under OASDI--such as those for selling individual enrollments, collection of health insurance contributions alone, and maintenance of the rolls of insured persons solely for purposes of health insurance. In the early estimates for HI benefits, a 5% allowance for administrative expenses had been made, but studies by administrative personnel of the Social Security Administration now indicate that this is too high a figure for the type of program under consideration.

The administrative expenses for the proposed benefits that are chargeable to the Hospital Insurance Trust Fund do not, of course, include the administrative expenses of the hospitals and other health agencies supplying the benefits, which are included as part of the benefit disbursements. Also not included are the record-keeping and tax-payment expenses incurred by employers in connection with the OASDI program.

C. Results of Cost Estimates

This Section first discusses various matters relating to the actuarial cost estimates (such as the underlying assumptions and methodology) and then presents the cost estimates for the hospitalization and related benefits (considering also those made in regard to the 1961 and 1963 Administration proposals). Finally, it gives the cost estimates for the cash-benefits portion of the OASDI system, as well as the summarized estimates for the system as a whole.

I. Concept of Actuarial Balance of System

The concept of actuarial balance as it applies to the OASDI system differs considerably from this concept as it applies to private insurance and private pension plans, although there are certain points of similarity with the latter. In connection with individual insurance, the insurance company or other administering institution, in order to be in actuarial balance, must have sufficient funds on hand so that if operations are terminated, it will be in a position to pay off all the accrued liabilities. This requirement, however, is not necessary for a national compulsory social insurance system. It might be pointed out that well-administered private pension plans have frequently not funded all their liability for prior service benefits.

It can reasonably be presumed that, under Government auspices, such a social insurance system will continue indefinitely into the future. The test of financial soundness, then, is not a question of whether there are sufficient funds on hand to pay off all accrued liabilities. Rather, the test is whether the expected future income from tax contributions and from interest on invested assets will be sufficient to meet anticipated expenditures for benefits and administrative costs. Thus, since the concept of "unfunded accrued liability" does not by any means have the same significance for a social insurance system as it does for a plan established under private insurance principles, it is quite proper to count both on receiving contributions from new entrants to the system in the future and on paying benefits to this group. These additional assets and liabilities must be considered in order to determine whether the system is in actuarial balance.

The question of whether the OASDI program is in actuarial balance depends upon whether the estimated future income from contributions and from interest earnings on the accumulated trust fund investments will, over the long run, support the disbursements for benefits and administrative expenses. Obviously, future experience may be expected to vary from the actuarial cost estimates made now. Nonetheless, the intent that the system be self-supporting can be expressed in law by utilizing a contribution schedule that, according to the intermediate-cost estimate, results in the system being in balance or substantially close thereto.

The congressional committees concerned with the program have, for many years, expressed the belief that it is a matter for concern if any portion of the OASDI system shows any significant actuarial insufficiency. Traditionally, the view has been held that for the OASI portion of the program, if such actuarial insufficiency when measured over perpetuity has been no greater than 0.25% of taxable payroll, it is at the point where it is within the limits of permissible variation. The corresponding point for the DI portion of the system is about 0.05% of taxable payroll (lower because of the relatively smaller financial magnitude of this program). Thus, for the OASDI program as a whole, the permissable limit of actuarial balance is 0.30% of taxable payroll. Furthermore, traditionally when there has been an actuarial insufficiency exceeding the limits indicated, any subsequent liberalizations in benefit provisions were fully financed by appropriate changes in the tax schedule or through raising the earnings base, and at the same time the actuarial status of the program was improved.

The 1963-64 Advisory Council on Social Security Financing (see footnote f) recommended that long-range costs should be measured over a 75-year period, rather than over perpetuity, and that then the estimated actuarial status of each trust fund should be reasonably close to an exact balance, and much closer than has been the standard in the past. The cost estimates have been made on this basis, with the assumption that, if the estimates show an exact balance, at the end of the 75-year period the balance in the trust fund should approximate 1 year's benefit payments.

II. Actuarial Status After Enactment of 1961 Act

The changes made by the 1961 Amendments involved an increased cost that was fully met by the changes in the financing provisions (namely, an increase in the combined employer-employee contribution rate of $\frac{1}{4}$%, a corresponding change in the rate for the self-employed, and an advance in the year when the ultimate rates would be effective--from 1969 to 1968). As a result, the actuarial balance of the program remained unchanged from what it was before this legislation.

Subsequent to 1961, the cost estimates were further reexamined in the light of developing experience. The earnings assumption was changed to reflect the 1963 level, and the interest-rate assumption used was modified upward to reflect recent experience. At the same time, the retirement-rate assumptions were increased somewhat to reflect the experience in respect to this factor.

The further developing disability experience indicated that costs for this portion of the program were significantly higher than previously estimated (because benefits are not being terminated by death or recovery as rapidly as had been originally assumed). Accordingly, the actuarial balance of the DI program was shown to be in an unsatisfactory position, and this has been recognized by the Board of Trustees, which recommended that the allocation to this trust fund should be increased (while, at the same time, correspondingly decreasing the allocation to the OASI Trust Fund, which under present law is estimated to be in satisfactory actuarial balance after such a reallocation).[g]

III. Basic Assumptions for Cost Estimates

This subsection will consider various aspects of the cost assumptions.

(a) General Basis for Long-Range Cost Estimates

Benefit disbursements under OASI may be expected to increase continuously for at least the next 50 to 70 years because of such factors as the aging of the population of the country and the slow but steady growth of the benefit roll. Similar factors are inherent in any retirement program, public or private, that has been in operation for a relatively short period. Estimates of the future cost of the OASDI program are affected by many elements that are difficult to determine. Accordingly, the assumptions used in the actuarial cost estimates may differ widely and yet be reasonable.

The long-range cost estimates (shown for 1975 and thereafter) are presented on a range basis so as to indicate the plausible variation in future costs depending upon the actual trends developing for the various cost factors. Both the low- and high-cost estimates are based on high economic assumptions, intended to represent close to full employment, with average annual earnings at about the level prevailing in 1963. In addition to the presentation of the cost estimates on a range basis, intermediate estimates developed directly from the low- and high-cost estimates (by averaging their components) are shown so as to indicate the basis for the financing provisions.

The cost estimates for OASI are extended beyond the year 2000, since the aged population itself cannot mature by then. The reason for this is that the number of births in the 1930's was very low as compared with subsequent experience. As a result, there will be a dip in the relative proportion of the aged from 1995 to about 2010, which would tend to result in low benefit costs for the OASI system during that period. Accordingly, the year 2000 is by no means a typical ultimate year insofar as these costs are concerned.

The cost estimates have been prepared on the basis of the same assumptions and methodology as those contained in the 24th Trustees Report (see footnote g). These estimates and their underlying assumptions are given in more detail in Actuarial Study No. 58.

The underlying assumptions have not been revised, and new detailed cost estimates prepared, because preliminary study indicates that the changes that would be made would be largely counterbalancing from a cost standpoint. For example, lower costs would result from using the higher earnings level of 1964, but higher costs would arise from considering the higher retirement rates of the last few years and other factors. Besides, there is the advantage of consistency and comparability in using the same cost bases for a period of a few years, when no significant net changes in the results would occur.

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[g] See "Annual Report of Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, Fiscal Year 1963" (House Doc. No. 236, 88th Congress), pp. 61-62.

(b) Measurement of Costs in Relation to Taxable Payroll

In general, the costs are shown as percentages of covered payroll. This is the best measure of the financial cost of the program. Dollar figures taken alone are misleading. For example, a higher earnings level will increase not only the outgo of the system but also, and to a greater extent, its income. The result is that when earnings rise, benefit costs in terms of dollars will also rise, but the cost relative to payroll will decrease.

(c) General Basis for Short-Range Cost Estimates

The short-range cost estimates (shown for the individual years 1965-72) are not presented on a range basis since--assuming a continuation of present economic conditions--it is believed that the demographic factors involved can be reasonably forecast, so that only a single estimate is necessary. A gradual rise in the earnings level is assumed for the future, paralleling that which has occurred in the past few years. As a result of this assumption, even though all provisions of the system including the earnings base are assumed to remain unchanged in the future at what the bill provides, contribution income is somewhat higher than if level earnings were assumed, while benefit outgo under the cash-benefits program is only slightly affected.

The short-range estimates presented here are consistent with those that will be shown in the 25th Trustees Report (to be submitted to Congress by March 1, 1965) and are slightly different from those in the Advisory Council Report (see footnote f), which were consistent with those of the 24th Trustees Report.

(d) Comparison of Bases for Short-Range and Long-Range Cost Estimates

Since the long-range cost assumptions do not involve an increasing-earnings assumption, the short-range and long-range cost estimates do not "link up" as between the 1972 data for the former and the 1975 data for the latter. Thus, for the cash-benefits program the balances in the trust funds at the end of 1972 according to the short-range estimates are higher than what the long-range estimates would show for that year. On the other hand, for the hospital-benefits program the balance in the trust fund at the end of 1972 according to the short-range estimates is lower than what the long-range estimates show for that year (since the hospital benefit costs are assumed to rise as earnings increase--see subsequent discussion).

(e) Level-Cost Concept

An important measure of long-range cost is the level-equivalent contribution rate required to support the system over a long-range future period, based on discounting at interest. If such a level rate were adopted, relatively large accumulations in the trust funds would result, and in consequence there would be sizable eventual income from interest. Even though such a method of financing is not followed, this concept may be used as a convenient measure of long-range costs, which permits comparison of various possible alternative plans, with weight being given to both early-year and deferred benefit costs.

(f) Future Earnings Assumptions

The long-range estimates are based on level-earnings assumptions at the level prevailing in calendar year 1963. This, however, does not mean that covered payrolls are assumed to be the same each year; rather, they are assumed to rise steadily as the population at the working ages is estimated to increase. If in the future the earnings level should be considerably above that which now prevails, and if the cash benefits are adjusted upward so that the annual costs relative to payroll will remain the same as now estimated for the present system, then the increased dollar outgo resulting will offset the increased dollar income. This is an important reason for considering costs relative to payroll rather than in dollars.

The long-range cost estimates have not taken into account the possibility of a rise in earnings levels, although such a rise has characterized the past history of this country. If such an assumption were used in the cost estimates, along with the unlikely assumption that the benefits, nevertheless, would not be changed, the cost relative to taxable payroll would, of course, be lower for the cash benefits, but the reverse would be so for the hospitalization and related benefits (as will be discussed in more detail later).

It is important to note that the possibility that a rise in earnings levels will produce lower costs of the cash-benefits program in relation to taxable payroll is a very important safety factor in the financial operations of this system. Its financing is based essentially on the intermediate-cost estimate, along with the assumption of level earnings; if experience follows the high-cost assumptions, and earnings do not rise, additional financing will be necessary. However, if covered earnings increase in the future as in the past, the resulting reduction in the cost of the program (expressed as a percentage of taxable payroll) will more than offset the higher cost arising under experience following the high-cost estimate. If the latter condition prevails, the reduction in the relative cost of the program coming from rising earnings levels can be used to maintain the actuarial balance of the system, and any remaining savings can be used to adjust the cash benefits upward (to a lesser degree than the increase in the earnings level). The possibility of future increases in earnings levels should be considered only as a safety factor and not as a justification for adjusting benefits upward in anticipation of such increases.

If benefits are adjusted currently to keep pace with rising earnings trends as they occur, the year-by-year costs as a percentage of taxable payroll would be unaffected. If benefits are increased in this manner, the level-cost of the program would be higher than now estimated, since, under such circumstances, the relative importance of the interest receipts of the trust funds would gradually diminish with the passage of time. If earnings and benefit levels do consistently rise, thorough consideration will need to be given to the financing basis of the system because then the interest receipts of the trust funds will not meet as large a proportion of the benefit costs as would be anticipated if the earnings level had not risen (under the present law, for example, for the OASI system, under level-earnings assumptions this proportion would average about 15% over the long range).

(g) Interrelationship With Railroad Retirement System

An important element affecting OASDI costs arose through amendments made to the Railroad Retirement Act in 1951. These provide for a combination of railroad retirement compensation and OASDI covered earnings in determining benefits for those with less than 10 years of railroad service (and also for all survivor cases).

Financial interchange provisions are established so that the trust funds are to be placed in the same financial position in which they would have been if railroad employment had always been covered under the program. It is estimated that, over the long range, the net effect of these provisions will be a relatively small loss to the OASDI system since the reimbursements from the railroad retirement system will be somewhat smaller than the net additional benefits paid on the basis of railroad earnings.

(h) Reimbursement for Costs of Military Service Wage Credits

Another important element affecting the financing of the program arose through legislation in 1956 that provided for reimbursement from general revenues for past and future expenditures in respect to the noncontributory credits that had been granted for persons in military service before 1957. The cost estimates contained here reflect the effect of these reimbursements (which are included as contributions), based on the provisions of the bill.

(i) Purposes of Intermediate-Cost Estimates

The long-range intermediate-cost estimates are developed from the low- and high-cost estimates by averaging them (using the dollar estimates and developing therefrom the corresponding estimates relative to payroll). The intermediate-cost estimate does not represent the most probable estimate, since it is impossible to develop any such figures. Rather, it has been set down as a convenient and readily available single set of figures to use for comparative purposes.

The Congress, in enacting the 1950 act and subsequent legislation, was of the belief that the OASDI program should be on a completely self-supporting basis. Therefore, a single estimate is necessary in the development of a tax schedule intended to make the system self-supporting. Any specific schedule will necessarily be somewhat different from what will actually be required to obtain exact balance between contributions and benefits. This procedure, however, does make the intention specific, even though in actual practice future changes in the tax schedule might be necessary. Likewise, exact self-support cannot be obtained from a specific set of integral or rounded fractional tax rates increasing in orderly intervals, but rather this principle of self-support should be aimed at as closely as possible.

IV. Cost Estimates for 1961 Hospitalization-Benefits Proposal

Long-range actuarial cost estimates for the 1961 proposal[h/] (as presented in Actuarial Study No. 52) that were made at about the time the 1961 bill was introduced indicated that the benefits provided (and the accompanying administrative expenses) would be exactly financed, on a long-range basis, by the two sources of revenue to the Health Insurance Account. These two sources were an increase of ½% in the combined employer-employee contribution rate (and a corresponding increase of 3/8% for the self-employed), effective in 1963, and the net "gain" to the OASDI system resulting from increasing the maximum annual earnings base from $4800 to $5000, effective in 1962. The latter "gain" was estimated to be equivalent, over the long run, to the effect of a rise in the combined employer-employee contribution rate of .10% of taxable earnings. The bill provided that the equivalent of this level contribution rate was to be continuously appropriated to the Health Insurance Account.

As indicated in the previous section, these estimates were revised somewhat during the first half of 1961, as a result of the continuous process of study and investigation of all factors involved in the actuarial cost estimates. In particular, this reexamination was focused on the three "subsidiary" benefits (i.e., other than hospitalization benefits), which are less important cost-wise. The revised estimates for these benefits also included certain partially offsetting reductions in hospitalization-benefits costs, as discussed previously.

[h/] This Administration proposal was contained in H.R. 4222, introduced by Congressman King on February 13, 1961 (and in S. 909, introduced by Senator Anderson on the same date).

The following table shows the original and revised estimates of the level-costs[i] of the various types of benefits (plus administrative expenses) under the 1961 proposal, expressed as percentages of taxable payroll:

Type of Benefit	Original Estimate	Revised Estimate*	
Hospitalization	.56%	.52%	(.57%)
Skilled Nursing Facility	.01	.08	(.05)
Home Health Services	.01	.05	(.03)
Outpatient Hospital Diagnostic	.02	.01	(.01)
Total	.60	.66	

*Cost for hospitalization benefits is shown after offset for reduced cost because of availability and use of skilled nursing facility and home health service benefits. Figures in parentheses are on the basis of "net additional cost" for the three auxiliary benefits.

As will be seen from these figures, the level income of .60% of taxable payroll provided under the proposal would have been just sufficient to finance the benefits on a long-range basis according to the original intermediate-cost estimate, but would have fallen about 10% short relatively according to the revised figures. For this reason, the Secretary of Health, Education, and Welfare in his testimony before the House Ways and Means Committee on this legislation in July 1961 recommended raising the earnings base from the $5,000 in the bill to $5,200; this change would have resulted in total financing of .66% of taxable payroll being available, or just sufficient to support the cost of the proposal, since the "gain" from raising the earnings base was estimated at .16% of taxable payroll (on the basis of 1959 earnings levels).

When the actuarial cost estimates (both for the cash benefits and the hospital benefits) were revised in 1962 to take into account 1961 earnings levels and other factors (as described previously), the financing available under a $5,200 earnings base was estimated at .68% of taxable payroll (because of a larger "gain" from raising the earnings base), but the benefit cost was estimated at .72% of taxable payroll. The Anderson-Javits Amendment[j] that was considered by the Senate in July

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[i] The level-cost is the average long-range cost, based on discounting at interest, relative to effective taxable payroll (which is the total earnings of all covered workers, reduced to take into account both the maximum taxable earnings base and the lower contribution rate for the self-employed as compared with the combined employer-employee rate so that, in effect, only 3/4 of the earnings of the self-employed within the maximum base are counted). For more details on this concept, see Section E of *Actuarial Study No. 49*. For cost estimates for proposals made before 1965, these level-costs are determined over perpetuity, while for the current proposal a 75-year period is also used.

[j] For more details on this proposal and legislative action thereon, see Wilbur J. Cohen and Robert M. Ball, "Public Welfare Amendments of 1962 and Proposals for Health Insurance for the Aged," *Social Security Bulletin*, October 1962.

1962 was the same as the 1961 version of the King-Anderson Bill insofar as OASDI beneficiaries were concerned, except for having a $5,200 earnings base and except for restricting the skilled nursing home benefits to such services provided by hospital-associated facilities (just as in the 1963 proposal). This change in the benefits reduced their estimated level-cost to .68% of taxable payroll, so that the financing was estimated to be just sufficient to support the benefits.

V. Cost Estimates for 1963 Hospitalization-Benefits Proposal, Insured Persons

Cost estimates for the 1963 proposal[k] were made on the same general basis as those described above for the Anderson-Javits Amendment. The following table shows the estimated long-range level-costs and first year costs (i.e., for 1965 on an accrual basis), by type of benefit, including the accompanying administrative expenses:

Type of Benefit	Level-Cost* (as % of payroll)		First-Year Cost (in millions)
Hospitalization	.59%	(.62%)	$1,315
Skilled Nursing Facility	.03	(.02)	30
Home Health Services	.05	(.03)	10
Outpatient Diagnostic	.01	(.01)	10
Total	.68		$1,365

*Cost for hospitalization benefits is shown after offset for reduced cost because of availability and use of skilled nursing facility and home health service benefits. Figures in parentheses are on the basis of "net additional cost" for the three auxiliary benefits.

The above figures for the first year of operation take into account the estimated actual price and earnings-level situation in 1965 (rather than the long-range assumptions in these respects).

During the consideration of the 1963 proposal[k] by Congress in 1964, the underlying assumptions as to the relationship between hospitalization costs and the general earnings level were revised (as described in Subsection III(d) of the preceding Section). As a result the estimated level-cost of this proposal was increased to .82% of taxable payroll.

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[k] The 1963 Administration proposal was contained in H.R. 3920, introduced by Congressman King on February 21, 1963 (and in S. 880, introduced by Senator Anderson on the same date). See Actuarial Study No. 57 for the cost estimates for this bill.

The version of H.R. 11865 (the Social Security Amendments of 1964 bill) that was approved by the Senate (but died in Conference) contained provisions for hospitalization and related benefits that were somewhat different from those of the 1963 proposal (H.R.3920) that was analyzed in Actuarial Study No. 57. The cost of the Senate-approved bill was somewhat lower than that of the 1963 proposal because the maximum number of days of skilled nursing facility benefits was reduced from 180 to 60 per benefit period; because a potential dynamic cost-sharing provision was introduced as an offset to the factor of hospitalization costs possibly rising more rapidly than the general earnings level (as assumed in the cost assumptions); and because the taxable earnings base was higher (although, on the other hand, there was a small increase in cost due to the so-called "transitional insured" group). The estimated level-cost of this Senate-approved bill was .76% of taxable payroll (see "Actuarial Cost Estimates for the Old-Age, Survivors, and Disability Insurance System as Modified by H.R. 11865, as Passed by the House of Representatives and as According to the Action of the Senate", issued by the House Ways and Means Committee).

VI. Cost Estimates for 1965 Hospitalization-Benefits Proposal, Insured Persons

Cost estimates for the current proposal have been made on the same general basis as previously, except that the assumptions as to the relationship between hospitalization prices and the general earnings level that were made by the Advisory Council (see Subsection III(e) of the preceding Section) have been used. Insofar as level-costs are concerned, these assumptions produce the same result as those used in connection with the legislation considered in 1964.

The following table shows the estimated long-range level-costs and first-year costs (i.e., for fiscal year 1967 on an accrual basis) by type of benefit, including the accompanying administrative expenses:

Type of Benefit	Level-Cost* (as % of payroll)		First-Year Cost (in millions)
Hospitalization	.75%	(.78%)	$1,670
Post-Hospital Extended Care	.03	(.02)	30
Home Health Services	.05	(.03)	10
Outpatient Diagnostic	.01	(.01)	10
Total	.84		1,720

*Cost for hospitalization benefits is shown after offset for reduced cost because of availability and use of extended care facility and home health service benefits. Figures in parentheses are on the basis of "net additional cost" for the three auxiliary benefits.

The figures for the first year of operation take into account the estimated actual price and earnings-level situation in 1966-67, rather than the long-range assumptions in these respects.

The following table compares the estimates of the number of persons aged 65 and over affected by the proposal as of the middle of 1966 (in millions, rounded to nearest 50,000):

Category	Estimates
Total Population	19.05[a]
OASDI Insured	16.05
Railroad Retirement Insured[b]	.60
Not Eligible[c]	.40
Blanketed-In	2.00

[a] Including allowance for an estimated 500,000 underenumeration in the projected census estimates.

[b] Does not include about 250,000 individuals who are "insured" under both OASDI and Railroad Retirement (shown in the preceding line).

[c] Consists primarily of those who are protected under the Federal Employees Health Benefits Act or the Retired Federal Employees Health Benefits Act (also includes certain non-insured persons who do not meet the residence or citizenship requirements or who are members of a subversive organization or have been convicted of a serious offense involving subversive activities).

The year-by-year costs of the benefit payments and the accompanying administrative expenses, according to the long-range cost estimates are as follows:

Calendar Year	Cost as Percentage of Taxable Payroll
1975	.88%
1980	.91
1985	.93
1990	.94
2000	.86
2020	.83

Unlike the trend for the cash-benefits portion of the program (which increases steadily in the future for at least the next 75 years, although reaching somewhat of a plateau in the two decades following 1990), the HI cost as a percentage of taxable payroll increases until 1990 and declines somewhat thereafter. This trend results from the fact that the increasing number of persons eligible for HI benefits is more than offset by the decreasing average daily hospitalization cost that results from the assumption of a continuing negative differential of $\frac{1}{2}$% between hospitalization costs and the level of general earnings, following 1975 (see Subsection III(e) of the preceding Section). In fact, as it so happens, the level-cost of the HI benefits is about .84% of taxable payroll whether it is determined over a 75-year period or whether it is determined over perpetuity.

Table 7 shows the estimated operations of the HI Trust Fund in various future years, according to both the short-range and long-range cost estimates. Under the latter, the trust fund grows steadily over future decades, although somewhat slowly between 1975 and 1990--such trend resulting from the assumptions made as to average daily hospitalization costs. Under the short-range estimate, the trust fund increases slowly for the first few years and represents somewhat more than $\frac{1}{2}$ year's outgo at the end of 1970. A decline in the trust fund balance is indicated after 1971, resulting from the fact that in this estimate, not only hospitalization costs, but also earnings levels, are assumed to increase steadily, but no change is assumed to be made in the earnings base to keep it up-to-date.

Table 8 shows corresponding figures for the low-cost and high-cost estimates. These have been derived merely by assuming a 15% range in benefit costs around the intermediate-cost estimate. About 10% of this range can be attributed to the spread between the low-cost and high-cost estimates of hospital utilization rates (see Table 2), and the remainder can be attributed to other factors that arise in relation to other factors (including those prevailing in the cash-benefits portion of the program).

Table 7

ESTIMATED PROGRESS OF HOSPITAL INSURANCE TRUST FUND UNDER H.R. 1, INTERMEDIATE-COST ESTIMATE[a]

(in millions)

Calendar Year	Contributions	Benefit Payments and Administrative Expenses[b]	Interest on Fund[a]	Balance in Fund at End of Year
Estimated Data, Short-Range Estimate[c]				
1966	$1,328	$818	$15	$525
1967	1,994	1,799	18	738
1968	2,135	2,001	24	896
1969	2,545	2,221	33	1,253
1970	2,690	2,465	45	1,523
1971	2,769	2,700	51	1,643
1972	2,850	2,946	52	1,599
Estimated Data, Long-Range Estimate[c]				
1975	$2,729	$2,657	$136	$4,320
1980	2,946	2,969	165	5,166
1990	3,373	3,525	193	5,975
2000	3,913	3,720	261	8,185

a/ An interest rate of 3.5% is used in determining the level-costs, but in developing the progress of the trust fund, a varying rate in the early years has been used, which is equivalent to such fixed rate.

b/ The net payment to (or from) the Railroad Retirement Account is included here.

c/ See subsection III(d), page 30 for discussion of interrelationships of short-range and long-range cost estimates.

Note: Contributions include reimbursement for additional cost of noncontributory credits for military service. Not reflected in this table are the transactions between the General Treasury and the trust fund with respect to the "non-insured" group that is blanketed-in and the benefit payments with respect to this group (and the resulting additional administrative expenses).

Table 8

PROGRESS OF HOSPITAL INSURANCE TRUST FUND UNDER H.R. 1, LOW-COST AND HIGH-COST ESTIMATES

(in millions)

Calendar Year	Contributions	Benefit Payments and Administrative Expenses[a]	Interest on Fund[b]	Balance in Fund at End of Year
		Low-Cost Estimate		
1975	$2,729	$2,258	$269	$7,891
1980	2,946	2,524	412	11,866
1990	3,373	2,996	768	21,748
2000	3,913	3,162	1,342	37,816
		High-Cost Estimate		
1975	2,729	3,056	21	815
1980	2,946	3,414	c/	c/

a/ The net payment to (or from) the Railroad Retirement system is included here.

b/ At interest rates of 3.75% for the low-cost estimate and 3.25% for the high-cost estimate.

c/ Fund exhausted in 1978.

Note: Contributions include reimbursement for additional cost of noncontributory credits for military service.

It should especially be noted that the operations of the HI Trust Fund are shown on the basis that they do not include the transactions for the "non-insured" or blanketed-in group. Furthermore, the benefit disbursement figures include only the net effect of the coverage of the beneficiaries of the Railroad Retirement system for the HI benefits, while the contribution figures do not include the HI contributions collected on railroad payrolls.

Table 9 shows the actuarial balances of the various portions of the OASDI system under H.R. 1, expressed as percentages of taxable payroll for both the perpetuity basis and the 75-year cost basis (shown for purposes of comparability). On both bases, the HI program is shown to have a favorable actuarial balance of .05% of taxable payroll, since the level-equivalent of the contribution schedule exceeds the level-cost of the benefit payments and administrative expenses. Most of this margin is, however, necessary so that there will be a satisfactory financial relationship between income and outgo during the 2 or 3 decades following 1980 (when, as indicated previously, benefit disbursements relative to taxable payroll reach a maximum and then decline). If the actuarial balance is computed over the 25-year period beginning with 1966, the level-equivalent of the contribution schedule is .87% of taxable payroll, while the level-equivalent of the benefits and administrative expenses is .85% of taxable payroll, or slightly above the figure for computations on both a perpetuity basis and a 75-year basis. Thus, under this 25-year cost basis, the HI program has a favorable actuarial balance of only .02% of taxable payroll.

VII. Cost Estimates for Cash-Benefits Portion of OASDI System Under H.R 1

This subsection presents the cost estimates for the cash-benefits portion of the OASDI system, as it would be revised by H.R. 1.

Table 9 summarizes the actuarial balance of the existing OASDI program in terms of percentages of taxable payroll according to the intermediate-cost estimate and gives corresponding information for this program, as it would be changed by H.R. 1, showing the cost effect of each of the major changes. For purposes of comparability, the presentation is in terms of both measuring the costs over perpetuity and of measuring them over only a 75-year period. On the 75-year cost basis, the OASI portion of the cash-benefits program is out of actuarial balance by .05% of taxable payroll, while the DI program has a favorable balance of .02% of taxable payroll. Both of these differences are small relatively so that it may be said that the program as a whole, as well as each of its constituent parts, are in actuarial balance.

Table 10 gives more detail about the actuarial balance of the several portions of the program as it would be modified by H.R. 1 according to the low-cost and high-cost estimates, as well as the intermediate-cost estimate, by analyzing the actuarial balances by considering their component parts--the level-costs of the benefits and the level-equivalents of the contributions.

Table 9

ACTUARIAL BALANCE UNDER H.R. 1, EXPRESSED AS PERCENTAGES OF TAXABLE PAYROLL

Item	OASI	DI	HI	Total
Computations on Perpetuity Basis				
Actuarial Balance of Present System	-.10%	-.14%	--	-.24%
Earnings Base of $5,600	+.28	+.03	--	+.31
Revised Contribution Schedule	+.03	+.17	+.89%	+1.09
Extensions of Coverage	+.03	--	--	+.03
Benefit Increase	-.55	-.05	--	-.60
Hospitalization and Related Benefits	--	--	-.84	-.84
Total Effect of Changes	-.21	+.15	+.05	-.01
Actuarial Balance Under Proposal	-.31	+.01	+.05	-.25
Computations on 75-Year Cost Basis				
Actuarial Balance of Present System	+.14%	-.13%	--	+.01%
Earnings Base of $5,600	+.28	+.03	--	+.31
Revised Contribution Schedule	+.03	+.17	+.89%	+1.09
Extensions of Coverage	+.03	--	--	+.03
Benefit Increase	-.53	-.05	--	-.58
Hospitalization and Related Benefits	--	--	-.84	-.84
Total Effect of Changes	-.19	+.15	+.05	+.01
Actuarial Balance Under Proposal	-.05	+.02	+.05	+.02

Table 10

ACTUARIAL BALANCES OF OLD-AGE, SURVIVORS, AND DISABILITY INSURANCE AND HOSPITAL INSURANCE PROGRAMS UNDER H.R. 1, 75-YEAR COST BASIS

(in percent of taxable payroll)

Item	OASI	DI	HI	Total
Intermediate-Cost Estimate				
Level-Cost of Benefits	8.71%	.65%	.84%	10.20%
Level-Equivalent of Contribution Schedule	8.66	.67	.89	10.22
Actuarial Balance	-.05	.02	.05	.02
Low-Cost Estimate				
Level-Cost of Benefits	7.68%	.58%	.71%	8.97%
Level-Equivalent of Contribution Schedule	8.66	.67	.89	10.22
Actuarial Balance	.98	.09	.18	1.25
High-Cost Estimate				
Level-Cost of Benefits	9.97%	.74%	.97%	11.68%
Level-Equivalent of Contribution Schedule	8.66	.67	.89	10.22
Actuarial Balance	-1.31	-.07	-.08	-1.46

Note: All figures adjusted to reflect lower contribution rate for the self-employed as compared with the combined employer-employee rate. In addition, the benefit-cost figures are adjusted for (a) interest on existing trust fund, (b) administrative expenses, (c) Railroad Retirement financial interchange provisions, and (d) reimbursements of military-wage-credits cost.

Table 11 presents data on the progress of the OASI Trust Fund in the past and the future estimates for it on both the short-range and long-range bases. The trust fund is estimated to show a decrease of somewhat over $900 million in calendar year 1965, which is caused by the benefit increases due to H.R. 1 being retroactive to the beginning of the year, with no additional financing being provided over present law. In 1966 and 1967, however, the trust fund is estimated to show annual increases of about $500 million, so that its balance at the end of 1967 will be about the same as at the end of 1964. Thereafter, very substantial increases (of about $4 billion annually in 1968-70) are estimated to occur as a result of the larger allocation to the OASI Trust Fund resulting from the increase in the combined employer-employee contribution rate from the $8\frac{1}{2}$% scheduled for 1966-67 to the 10% rate scheduled for 1968-70. The effect of the increases in the contribution rates scheduled for 1968 and 1971--combined with the fact that the program is in substantial actuarial balance over the long-range--is that the OASI Trust Fund is estimated to increase significantly in the future, reaching somewhat more than $100 billion by the year 2000.

Table 12 shows corresponding figures for the DI Trust Fund. In calendar year 1965, this trust fund is estimated to decrease by about $430 million (as a result of the benefit increase occurring without any additional financing). A decrease of about $25 million is estimated for 1966, since the increase in the allocation to this trust fund is not fully effective in 1966 (because of lag in contribution collections). Following 1966, however, according to the short-range estimate, the trust fund increases by approximately $100 million per year. The long-range estimate similarly shows that the DI Trust Fund will increase over the years, and by the end of the century its size is estimated at $5.6 billion.

Tables 13 and 14 present data on the progress of the OASI and DI Trust Funds, respectively, according to the low-cost and high-cost estimates. As would be anticipated, the balances in the trust funds under the low-cost estimate increase rapidly over the years, whereas under the high-cost estimate the trust funds are exhausted after some time (in about 30 years for the OASI Trust Fund and in somewhat more than 10 years for the DI Trust Fund).

VIII. Cost Estimates for H.R. 1, Hospitalization Benefits for Non-Insured Persons and Savings under Assistance Programs as a Result of Hospitalization Benefits

This subsection presents short-range cost estimates of the financial effect of blanketing-in noninsured persons aged 65 and over for the hospitalization and related benefits provided under the bill. The specific details of these provisions have been given in Section A.

Table 11

PROGRESS OF OLD-AGE AND SURVIVORS INSURANCE TRUST FUND UNDER H.R. 1, INTERMEDIATE-COST ESTIMATE[a]

(in millions)

Calendar Year	Contributions	Benefit Payments	Administrative Expenses	Railroad Retirement Financial Interchange[b]	Interest on Fund[a]	Balance in Fund at End of Year[c]
			Actual Data			
1955	$ 5,713	$ 4,968	$119	-$7	$ 454	$ 21,663
1956	6,172	5,715	132	-5	526	22,519
1957	6,825	7,347	162[d]	-2	556	22,393
1958	7,566	8,327	194[d]	124	552	21,864
1959	8,052	9,842	184	282	532	20,141
1960	10,866	10,677	203	318	516	20,324
1961	11,285	11,862	239	332	548	19,725
1962	12,059	13,356	256	361	526	18,337
1963	14,541	14,217	281	423	521	18,480
1964[e]	15,688	14,902	300	403	565	19,128
			Estimated Data, Short-Range Estimate[f]			
1965	$16,014	$16,769	$328	$399	$ 547	$ 18,193
1966	18,427	17,693	351	411	547	18,712
1967	19,299	18,506	353	477	568	19,243
1968	23,357	19,348	359	446	623	23,070
1969	24,491	20,185	367	431	784	27,362
1970	25,156	21,027	375	395	965	31,686
1971	26,904	21,879	383	387	1,156	37,097
1972	27,907	22,732	391	370	1,383	42,894
			Estimated Data, Long-Range Estimate[f]			
1975	$26,839	$23,532	$390	$336	$1,638	$ 52,160
1980	28,969	27,373	431	162	2,270	70,477
1990	33,156	34,713	510	24	2,954	89,784
2000	38,457	38,473	559	-40	3,460	105,913
2020	46,423	52,821	722	-70	5,719	170,868

[a] An interest rate of 3.5% is used in determining the level-costs, but in developing the progress of the trust fund a varying rate in the early years has been used, which is equivalent to such fixed rate.

[b] A negative figure indicates payment to the trust fund from the Railraod Retirement Account, and a positive figure indicates the reverse.

[c] Not including amounts in the Railroad Retirement Account to the credit of the OASI Trust Fund. In millions of dollars, these amounted to $377 for 1953, $284 for 1954, $163 for 1955, $60 for 1956, and nothing for 1957 and thereafter.

[d] These figures are artificially high because of the method of reimbursements between this trust fund and the DI Trust Fund (and, likewise, the figure for 1959 is too low).

[e] Preliminary figure.

[f] See subsection III(d), page 30 for discussion of interrelationships of short-range and long-range cost estimates.

Note: Contributions include reimbursement for additional cost of noncontributory credits for military service.

Table 12

PROGRESS OF DISABILITY INSURANCE TRUST FUND UNDER H.R. 1, INTERMEDIATE-COST ESTIMATE[a]
(in millions)

Calendar Year	Contributions	Benefit Payments	Administrative Expenses	Railroad Retirement Financial Interchange[b]	Interest on Fund[a]	Balance in Fund at End of Year
Actual Data						
1957	$ 702	$ 57	$ 3[c]	--	$ 7	$ 649
1958	966	249	12[c]	--	25	1,379
1959	891	457	50	-$22	40	1,825
1960	1,010	568	36	-5	53	2,289
1961	1,038	887	64	5	66	2,437
1962	1,046	1,105	66	11	68	2,368
1963	1,099	1,210	68	20	66	2,235
1964[d]	1,153	1,318	80	20	64	2,034
Estimated Data, Short-Range Estimate[e]						
1965	$1,187	$1,566	$ 85	$20	$ 54	$1,604
1966	1,663	1,624	90	20	46	1,579
1967	1,824	1,685	95	20	46	1,649
1968	1,883	1,736	97	15	50	1,734
1969	1,944	1,782	100	15	53	1,834
1970	2,005	1,829	103	15	58	1,950
1971	2,063	1,871	106	15	62	2,083
1972	2,124	1,911	109	15	67	2,239
Estimated Data, Long-Range Estimate[e]						
1975	$2,037	$1,952	$103	$ 5	$ 65	$2,095
1980	2,199	2,118	106	-3	72	2,327
1990	2,517	2,346	107	-6	102	3,289
2000	2,919	2,754	120	-6	181	5,650

a/ An interest rate of 3.5% is used in determining the level-costs, but in developing the progress of the trust fund a varying rate in the early years has been used, which is equivalent to such fixed rate.

b/ A negative figure indicates payment to the trust fund from the Railroad Retirement Account, and a positive figure indicates the reverse.

c/ These figures are artificially low because of the method of reimbursements between this trust fund and the OASI Trust Fund (and, likewise, the figure for 1959 is too high).

d/ Preliminary figure.

e/ See subsection III(d), page 30 for discussion of interrelationship of short-range and long-range cost estimates.

Note: Contributions include reimbursement for additional cost noncontributory credits for military service.

Table 13

PROGRESS OF OLD-AGE AND SURVIVORS INSURANCE TRUST FUND UNDER H.R. 1, LOW-COST AND HIGH-COST ESTIMATES

(in millions)

Calendar Year	Contributions	Benefit Payments	Administrative Expenses	Railroad Retirement Financial Interchange[a]	Interest on Fund[b]	Balance in Fund at End of Year
			Low-Cost Estimate			
1975	$27,406	$22,966	$361	$306	$2,109	$62,900
1980	29,878	26,442	398	127	3,209	93,005
1990	35,359	32,869	469	-16	5,674	161,280
2000	42,157	35,849	515	-80	9,772	276,868
			High-Cost Estimate			
1975	$26,272	$24,098	$418	$366	$1,286	$41,975
1980	28,060	28,304	464	197	1,518	49,288
1990	30,953	36,557	550	64	700	22,783
2000	34,757	41,096	603	0	c/	c/

a/ A negative figure indicates payment to the trust fund from the Railroad Retirement Account, and a positive figure indicates the reverse.

b/ At interest rates of 3.75% for the low-cost estimate and 3.25% for the high-cost estimate.

c/ Fund exhausted in 1994.

Note: Contributions include reimbursement for additional cost of noncontributory credits for military service.

Table 14

PROGRESS OF DISABILITY INSURANCE TRUST FUND UNDER H.R. 1, LOW-COST AND HIGH-COST ESTIMATES
(in millions)

Calendar Year	Contributions	Benefit Payments	Administrative Expenses	Railroad Retirement Financial Interchange[a]	Interest on Fund[b]	Balance in Fund at End of Year
			Low-Cost Estimate			
1975	$2,080	$1,820	$94	$2	$140	$4,120
1980	2,267	1,958	95	-7	206	5,998
1990	2,683	2,161	94	-11	435	12,476
2000	3,199	2,574	103	-11	857	24,221
			High-Cost Estimate			
1975	$1,995	$2,085	$112	$8	$1	$121
1980	2,131	2,279	117	1	c/	c/
1990	2,350	2,531	120	-1	c/	c/
2000	2,639	2,935	137	-1	c/	c/

a/ A negative figure indicates payment to the trust fund from the Railroad Retirement Account, and a positive figure indicates the reverse.

b/ At interest rates of 3.75% for the low-cost estimate and 3.25% for the high-cost estimate.

c/ Fund exhausted in 1976.

Note: Contributions include reimbursement for additional cost of noncontributory credits for military service.

The figures in the table below show the cost to the Federal General Treasury for the blanketed-in group. The figures indicate the amount of money that would flow through the Hospital Insurance Trust Fund on the assumption that the General Treasury would reimburse the trust fund immediately after it had made its payments to the providers of the benefits. The table also shows the savings to the General Treasury and to State and local funds under the Medical Assistance for the Aged and the Old-Age Assistance programs (with respect to both insured and noninsured individuals receiving hospital and related benefits through the trust fund that would otherwise have been paid under the two assistance programs) under the assumption that the services under these programs would not be expanded; of course, if the States utilized such savings as indicated in the table to broaden their medical services, then the Federal savings shown would not materialize. The figures (in millions) are as follows:

	If No Blanketing-In		If Blanketing-In			
	MAA and OAA Savings		Federal Cost for HI	MAA and OAA Savings		Net Federal Cost
Calendar Year	Federal	State and Local		Federal	State and Local	
1966	$50	$60	$125	$90	$110	$35
1967	120	130	255	200	230	55
1968	130	140	250	205	235	45
1969	140	150	245	215	245	30

It will be observed that for the first full calendar year of operation (1967), the estimated Federal savings in MAA and OAA would be about $120 million with respect to insured OASDI beneficiaries (in other words, assuming that there would be no blanketing-in), while the corresponding State and local savings would be slightly higher. On the other hand, if there is blanketing-in, the corresponding figures would be a cost to the General Treasury of about $255 million for the HI benefits (which would flow through the HI Trust Fund), but that this would be largely offset by Federal savings for MAA and OAA of about $200 million (again, $120 million with respect to OASDI beneficiaries and $80 million with respect to the blanketed-in group), leaving a net Federal cost of $55 million--as against a Federal savings of $120 million if there were no blanketing-in. Of course, the blanketing-in would have a favorable effect on State and local finances, since then their savings in MAA and OAA would be about $100 million higher.

Since the blanketed-in group is a closed one (with no new entrants after 1973), the cost therefor eventually disappears. The initial number of persons included in this category decreases slowly from the estimated 2.0 million in 1966 to about 1.1 million in 1970, since the effect of mortality more than offsets the increments from new persons becoming eligible as they attain age 65. The estimated cost, under dynamic-economic assumptions, remains relatively level from 1966 to 1970--despite fewer potential beneficiaries--because of the rise in the estimated per capita cost and usage. After 1970, the number in the blanketed-in group is estimated to decrease rapidly--to about .7 million in 1975 and .3 million in 1980, and then is virtually negligible after 1990.

D. Problems Involved in Cost Estimates for Hospitalization and Related Benefits

Long-range actuarial cost estimates, by their very nature, can present the general range of future costs but cannot be a precise forecast of future experience. This fact has been taken into consideration in the cost estimates for the OASDI program over the more than quarter century of its operation. From time to time the assumptions underlying the actuarial cost estimates have been revised to take into account later available data and indications of trends. The cost estimates for the proposed program of hospitalization and related benefits are subject to similar revisions.

There is a somewhat greater relative range of probable costs for the proposed hospital benefits than for the OASDI cash benefits, which system has been paying monthly benefits for 25 years. Not only are the data incomplete for some of the various cost aspects and factors underlying the proposed hospitalization benefits as they would be provided under a social insurance system, but also service benefits quite obviously do not have costs as readily determinable as cash benefits that are directly related to covered earnings. But it should be recognized that, similarly, when the present OASDI cash benefits program was enacted in 1935, little was known about many of the factors entering into the actuarial cost estimates. Then, as now, assumptions had to be made on the basis of the data available, using the best possible actuarial judgment.

From a cost standpoint, the major benefit in the bill is the provision of hospital care. A great amount of data is available in regard to hospitalization experience of aged persons. Principal sources include the 1957 Beneficiary Surveys made by the Social Security Administration, the continuing investigations made by the National Health Survey of the Public Health Service, the 1963 Survey of the Aged made jointly by the Bureau of the Census and the Social Security Administration, and the experience of various insuring organizations such as the Blue Cross and private insurance companies. Much of this information has previously been summarized in the 1959 Hospitalization Report. Nonetheless, precise estimates are not possible because of such unknowns as the extent of hospital utilization by persons who have not had insurance in the past, but who would have benefit coverage under the provisions of the bill.

Another major difficulty in making cost estimates for hospitalization benefits is the extent to which hospital costs will rise in the future. The long-range actuarial cost estimates for the OASDI system have always assumed that earnings would be level in the future--for reasons that are described in detail elsewhere (see Actuarial Study No. 49, page 8, and the Report of the Committee on Ways and Means of the House of Representatives on the Social Security Amendments of 1961, H. Rept. No. 216, 87th Cong., April 7, 1961, pp. 14-16). This assumption means that benefit costs relative to payroll will not be affected by any rising-earnings trend that may develop, because it is assumed that the benefit structure (including the maximum earnings base that is creditable toward benefits and that is subject to contributions) will be adjusted to keep pace with the rising earnings.

When earnings levels have increased in the past (increasing both benefit outgo and tax income--the latter more than the former, because of the weighted benefit formula), this factor has been recognized in subsequent cost estimates. Any resulting net reduction in cost has been made available for the financing of the program, including proposed benefit liberalizations. Liberalizations financed entirely in this manner tend to keep the system up to date.

In considering the hospitalization-benefit costs in conjunction with a level-earnings assumption for the future, it is sufficient for the purposes of long-range cost estimates merely to analyze possible future trends in hospitalization costs relative to covered earnings. Accordingly, any study of past experience of hospitalization costs should be made on this relative basis. The actual experience in recent years has indicated, in general, that hospitalization costs have risen much more rapidly than the general earnings level, with the differential being in the neighborhood of 2.7% per year in the past decade.

One of the uncertainties in cost estimates for hospitalization benefits, then, is how long and to what extent this tendency of hospital costs to rise more rapidly than the general earnings level will continue in the future--and whether or not it may, in the long run be counterbalanced by a trend in the opposite directions. Some factors to consider are the relatively low wages of hospital employees (which have been rapidly "catching up" with the general level of wages and obviously may be expected to "catch up" completely at some future date, rather than to increase indefinitely at a more rapid rate than wages generally) and the development of new medical techniques and procedures, with resultant increased expense. In connection with the latter factor, there are possible counterbalancing factors, in that the higher costs involved for more refined and extensive treatments may be offset by better general health conditions, the development of out-of-hospital facilities (which involve lower costs), shorter durations of hospitalization, and less expense for subsequent curative treatments as a result of preventive measures. Also, it is possible that at some time in the future, the productivity of hospital personnel will increase significantly, and accordingly, as in other fields of economic activity, their wages will increase more rapidly than prices charged for hospitalization.

Perhaps the major difficulty in making, and in presenting, these actuarial cost estimates for hospitalization benefits is that--unlike for the OASDI monthly benefits--an unfavorable cost result is shown when total earnings levels rise unless the provisions of the system are kept up-to-date (insofar as the maximum taxable earnings base is concerned[a/]). The reason for this is that there is the fundamental actuarial assumption that the

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[a/] If the deductibles were expressed in terms of dollars (instead of in terms of average daily hospital cost, as in the bill), there would also be the requirement that these would have to be kept up-to-date.

hospitalization costs will rise at a slightly lower rate over the long run as the total earnings level, whereas the contribution income rises less rapidly than the total earnings level since it depends on the covered earnings level, which is dampened because of the effect of the earnings base. Accordingly, it is necessary in the actuarial cost estimates for hospitalization benefits to assume either that earnings levels will be unchanged in the future or that, if earnings continue to rise (as they have done in the past), then from a given point of time, the system will be kept up-to-date insofar as the earnings base is concerned.

The other three benefits provided by the bill would have a far lower relative cost than the hospitalization benefits (assuming that the types of services provided by the different facilities remain approximately the same as at present). Accordingly, even relatively large variations in the cost estimates for these benefits would have much less effect on the overall costs of the proposal. Although these services are now being extensively provided in a number of areas, comparatively little data are available in regard to their cost for aged persons, when provided in the manner set out by the bill. In many instances, these services are not currently available because of lack of facilities (or insufficient facilities). Accordingly, the early-year costs for these benefits will be relatively low. The long-range costs, however, are determined on the assumption that sufficient, adequate facilities will be available to supply the benefits provided.

Another important factor in connection with the actuarial analysis of proposals for various types of hospitalization and related benefits is their cost-interrelationship. For example, if hospitalization benefits were provided, but post-hospital extended care were not, there would tend to be more utilization of the hospitalization benefits because an individual would be more likely to stay longer in a hospital (at little or no cost to him) rather than to enter an extended care facility operating at lower cost, but with the full amount to be paid by him. Similarly, if there were no out-patient hospital diagnostic benefits provided in the bill, and if there were no deductible in the hospitalization benefits, there would be a financial incentive for an individual to enter a hospital (with resulting higher cost) to obtain these services without cost to him.

Likewise, the availability of home health services can reduce hospitalization-benefit costs in certain cases. Otherwise, an individual might enter a hospital, or stay in it longer, if in doing so there were less cost to him personally than in obtaining home health services. On the other hand, the home health services, when available, will undoubtedly be utilized by many persons who would not otherwise have been in hospitals.

In the same way, the presence (or absence) of a deductible provision for one benefit can influence not only the cost of that benefit, but also the costs of other types of benefits.

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40. The Financial Principle of Self-Support in the OASI System--April 1955.

41. Analysis of Benefits, OASI Program, 1954 Amendments--May 1955.

43. Estimated Amount of Life Insurance in Force as Survivor Benefits under OASI--1955--September 1955.

44. Analysis of 157 Group Annuity Plans Amended in 1950-54--July 1956.

45. Present Values of OASI Benefits in Current Payment Status 1940-56--May 1957.

46. Illustrative United States Population Projections--May 1957.

47. Estimated Amount of Life Insurance in Force as Survivor Benefits under OASI--1957--July 1958.

48. Long-Range Cost Estimates for Old-Age, Survivors, and Disability Insurance under 1956 Amendments--August 1958.

49. Methodology Involved in Developing Long-Range Cost Estimates for the Old-Age, Survivors, and Disability Insurance System--May 1959.

50. Analysis of Benefits, OASDI Program, 1960 Amendments--December 1960.

51. Present Values of OASI Benefits in Current Payment Status, 1960--February 1961.

52. Actuarial Cost Estimates for Health Insurance Benefits Bill--July 1961.

53. Medium-Range Cost Estimates for Old-Age, Survivors, and Disability Insurance and Increasing-Earnings Assumption--August 1961.

54. Estimated Amount of Life Insurance in Force as Survivor Benefits under OASI 1959-60--October 1961.

55. Remarriage Tables Based on Experience under OASDI and U.S. Employees' Compensation Systems--December 1962.

56. Analysis of Benefits under 26 Selected Private Pension Plans--January 1963.

57. Actuarial Cost Estimates for Hospital Insurance Bill--July 1963.

58. Long-Range Cost Estimates for Old-Age, Survivors, and Disability Insurance System, 1963--January 1964.

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*Numbers not listed are out of print.

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